Determinants, correlates and mediators of psychological distress: A longitudinal study

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ARTICLE INFO

ABSTRACT

This study examined determinants and correlates of psychological distress focusing on the roles of psychosocial resources, such as sense of mastery and social support in mediating and/or moderating the effects of life stressors, such as unfavourable socioeconomic conditions (SES), poor physical health and chronic daily stress on individuals' level of distress. Additionally, the above examination was conducted for men and women separately and the results were compared. The study was based on secondary analyses of data collected by Statistics Canada in two cycles of the National Population Health Survey: 2002/2003 and 2004/2005. The sample used included 2535 men and 3200 women between the ages of 25 and 64 years. Further, this research used structural equation techniques to examine pathways among life stressors, psychosocial resources and distress and block regression analysis to examine the moderating roles of mastery and social support. Chronic daily stress was measured in 2004/2005 and two years earlier, in 2002/2003. Main findings included: (1) higher levels of mastery and social support were found to be associated with less depressive symptoms for both men and women, (2) in addition to its significant main effect on distress, mastery moderated the detrimental effects of poor physical health and chronic daily stress on depressive symptoms for both genders, (3) the effects of daily stress, poor physical health and unfavourable SES on level of distress were partially mediated through mastery, (4) next to daily stress, poor physical health had the most impact on level of distress for both genders, albeit a stronger impact for women, (5) mastery played a more important role in the distress process of women compared with men, and (6) while perceived social support decreased the likelihood of distress for men directly, it decreased women's likelihood of distress by increasing their mastery. Symptoms of distress indicate present and/or future need for health care services. Thus, prevention of distress may lead to a reduction in health care costs in addition to the reduction of subjective suffering. Findings emphasize the importance of allocating resources to groups at high risk of developing distress, such as the poor and the physically unhealthy.

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Background

Mental health problems represent a significant burden to individuals and society. It can lead to disruption in interpersonal and family relationships, loss of production and social function, disability, physical morbidity and mortality (Fryers, Melzer, & Jenkins, 2003; Melzer, Fryers, & Jenkin, 2003). In the United States, mental illness is the second leading cause of disability and premature mortality after cardiovascular disease (U.S. Department of Health and Human Services, 1999). In Canada, in 2002, approximately 11% of the population had at least one mental disorder. Of these individuals, 75.5% reported that their mental condition interfered with their lives, and one in six (18.4%) reported that they had to reduce their work activities (Government of Canada, 2006).

Socioeconomic conditions and mental health

The socioeconomic gradient in health, both among and within countries, has long been recognized (Commission on Social Determinants of Health, 2005; Marmot, 2001). Additionally, a burgeoning body of research has shown that lower socioeconomic status is associated with higher risk of mental ill-health. In a review of this research, Fryers et al. (2003) reported that eight out of nine large population-based studies provided evidence for an association between one or more markers of less privileged social position and higher prevalence of common mental disorders. These authors also found that unemployment, less education and low-income showed more consistent associations with mental illness than other

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measures of socioeconomic conditions. More recently, low socio-economic status was found to impact rates of mental illness directly and indirectly through its impact on economic hardship in low and middle income groups (Hudson, 2005). Similar results have been found in a national sample of South Africans (Myer, Stein, Grimsrud, Seedat, & Williams, 2008), a national sample of the Norway population (Dalgard, Mykletun, Rognerud, Johansen, & Zahl, 2007) and in a national sample of Finns (Talala, Huurre, Aro, Martelin, & Prattala, 2008).

The role of psychosocial resources

The role of positive functioning and psychosocial resources such as sense of mastery (mastery) and social support (support) in mediating and/or moderating the impact of life stressors, including socioeconomic stressors, on individuals' mental health has been indicated in many studies. Strong mastery, or the extent that people feel in control of their lives (Pearlin, Menaghan, Lieberman, & Mullan, 1981), was found to moderate the harmful effects of life stressors on psychological distress (distress) (Shin, Han, & Kim, 2007). A robust mastery was also indicated as a protective factor against the detrimental effects of socioeconomic disadvantages on mental health in the general population (Goosby, 2007; Grote, Bledsoe, Larkin, Lemay, & Brown, 2007; Lachman & Weaver, 1998). Schieman, Van Gundy, and Taylor (2002) found that the negative effects of physical impairment on depressive symptoms to be almost entirely mediated through the individual's level of mastery. More recently, findings of Goosby (2007) and Grote et al. (2007) in financially disadvantaged women indicated that higher mastery protected some women against the development of depressive symptoms even in the presence of significant stressors. It has also been suggested that a lower mastery in women may account in part for their higher prevalence of depressive symptoms across the lifespan (Nolen-Hoeksema, Larson, & Grayson, 1999). High levels of mastery and support were associated with less depressive mood in women experiencing economic stress, but with different buffering impact for Europeans and African Americans (Ennis, Hobfoll, & Schroder, 2000). In another study, both mastery and support emerged as significant mediators of the negative relationship between level of education and distress (Dalgard et al., 2007).

Some research findings have indicated that individuals' mastery was related to their social status (Thoits, 1995) and was specifically reduced in lower income groups (Jang, Borenstein-Graves, Haley, Small, & Mortimer, 2003; Lachman & Weaver, 1998). Goosby (2007) found that the length of time mothers spent in poverty predicted their maternal mastery and psychological functioning. Perceived support has also been shown to decrease with socioeconomic status (Turner & Marino, 1994; Wade & Kendler, 2000). Green and Rodgers (2001) proposed a reciprocal relationship between mastery and support, whereby higher levels of mastery may help facilitate needed support and perceived strong support may lead to greater feeling of control.

Research on working populations has been largely based on the demand–control–support model introduced by Karasek (1979) and Karasek and Theorell (1990). According to this model, workers whose jobs rated high in job demands and low in job control (as measured by latitude over decisions) and low support experience a higher number of health and psychological problems compared to other workers. Incorporating mastery and self-esteem in the above model, Cole and colleagues found work stressors to have significant harmful effects on distress, which was mediated by mastery and self-esteem (Cole, Ibrahim, Shannon, Scott, & Eyles, 2002). In a longitudinal study of the association between work characteristics and mental health, De Lange, Taris, Kompier, Houtman, and Bongers (2004) found evidence of a reciprocal causal relationship, whereby mental health influenced work characteristics.

Gender differences in the relationships between life stressors, psychosocial resources and distress

It has also been suggested that life stressors as well as protective factors (e.g., support) have differential effects on the mental health of men and women (Elliot, 2001). For example, Lorant et al. (2007) found that increased financial strain had a stronger negative effect on depression level for women compared to men, while entering a cohabiting relationship was more likely to reduce depression in women than in men. Muntaner, Borrell, Benach, Pasarin, and Fernandez (2003) reported that measures of social class and social stratification were both related to mental health in women but not in men. On the other hand, Matthews et al. found that the associations of work factors with distress and social class were consistently stronger in men compared to women (Matthews, Power, & Stansfeld, 2001).

The present investigation is intended to further our understanding of the underlying structure of the stress–mental health relationship by conducting a comprehensive examination of both negative and positive determinants of mental health. Specifically, this study aimed to examine the underlying structure of the relationships between distress and common life stressors, namely socioeconomic status, physical health and chronic stress and to assess the roles of mastery and perceived support in buffering the effects of these stressors on distress. Additionally, the study explored gender differences, if any, in the above relationships. Further, the study examined the moderating roles of mastery and support in the relationship between common life stressors and distress.

Distress is defined as an unpleasant emotional state of psychological or social nature that affects the individual's ability to cope with a particular set of circumstances (Sellick & Edwardson, 2007). Distress often accompanies depression, either concurrently (Pandey et al., 2007) or as preceding depressive symptoms (Wang, 2005). Distress symptomology has also been found to correlate reasonably well with clinically assessed mental disorders (Hoeymans, Garssen, Westert, & Verhaak, 2004) and with the use of mental health services (Parslow & Jorm, 2000). Thus, measures of distress have been widely used to monitor mental well-being and psychopathology at the general population level (Talala et al., 2008).

The present analyses used subjective as well as objective measures of physical health and life stress and were based on the structural equation modeling of the most recent longitudinal national data available on 25–64-year-old Canadians. In addition, life stress was measured in 2004/2005 as well as two years earlier. The use of structural equation technique in analysing the data allowed for the simultaneous estimation of both measurement and structural relationships as well as the estimation of the relative importance of each source of stress and each protective factor in the stress–mental health process.

Methodology

Data

This study was based on secondary analyses of data collected in two cycles of the National Population Health Survey (NPHS): 2002/2003 and 2004/2005. This is a longitudinal survey in which data related to health, socioeconomic and demographic information are collected. The survey sample represents approximately 98% of household residents in the ten Canadian provinces. The survey